123 Main Street
White Plains, New York 10601
914 681.6200

New York Power Authority

October 24, 2000

Ms. Margaret Duke
Regional Permit Administrator
New York State Department of Environmental Conservation
Region 3
Division of Environmental Permits
21 South Putt Corners Road
New Paltz, New York 12561-1696

RE: Request to Modify the State Pollutant Discharge Elimination System (SPDES) Permit (No. 0004472) for the Indian Point Generating Station for Work Associated with Desilting Activities

The New York Power Authority (Authority) requests that the Department modify the State Pollutant Discharge Elimination System (SPDES) Permit (No. 0004472) for the Indian Point Generating Station to allow for the discharge of water associated with desilting activities at the site.

The Authority's Indian Point Unit No. 3 Nuclear Power plant periodically must assess the accumulation of silt and debris within the intake structure and forebays to comply with the commitments made in response to the Nuclear Regulatory Commission's Generic Letter 89-13. One component of this generic letter commitment requires that all licensees assess the accumulation of silt and debris within their intake structures and forbays, which could possible result in reduced pumping rates, or blockage of the pumps. The Authority has determined that excess sediment and debris has accumulated in the intake structure and forebay and must now be removed.

The Authority intends to remove the silt and any debris that fall from the floor of our service water forebay and package it for transport and disposal. However, before the silt can be shipped for disposal, the concentration of water in the silt must be reduced to levels acceptable to the disposal site. The Authority intends to perform this process on site utilizing a contractor skilled in dewatering operations. As part of the dewatering process excess water must be removed from the sediments. The Authority intends to discharge this excess water into the existing stormwater collection system eventually entering the discharge canal. Therefore, we are seeking a modification to our existing SPDES permit to allow the discharge of the water removed during the dewatering process.

C001

To accomplish the necessary dewatering, our contractor has proposed to use a filter press and to add a flocculent to enhance to consolidation process. The flocculent to be used will be Aries 3441 (see attached MSDS). Once the water is separated out, it will be further filtered using sand filters to ensure that the effluent meets NYS water quality criteria. Final discharge effluent will occur through the existing stormdrain outfall 001J. We expect the water to be discharged at approximately 1000 gpm. Previous sampling and analysis has shown that the silt does not contain hazardous constituents. However, the silt will be packaged and transported to Utah for disposal as technologically enhanced radioactive material. The discharged water will not be technologically enhanced, as outlined in the attached memo.

In order to ensure that the water being released meets all NYS Water Quality Criteria the effluent will be periodically sampled during periods when discharges are taking place. Currently we intend to sample once per 12-hr shift. Results of this testing will be included on the site Discharge Monitoring Report. This project is currently scheduled to begin on November 30, 2000 and last for approximately 8 days.

The Authority requests that his modification be processed separate from the pending permit transfer of the site SPDES permit to Entergy Nuclear Indian Point 3, LLC from the New York Power Authority.

Please call me at (914) 681-6308 or Ms. Dara Gray (IP3) at (914) 736-8414, if you have any questions.

John M. Kahabka For
Supervisor
Environmental Programs

cc: Keith Barauch
Environmental Health & Safety Manager
Consolidated Edison, Indian Point 2

U.S. Nuclear Regulatory Commission

Mr. Paul Kolakowski
New York State Department of Environmental Conservation
50 Wolf Road
Albany, New York 12233-3505

Dara Gray
Indian Point 3 Nuclear Power Plant
PO Box 215
Broadway & Bleakley Ave.
Buchanan, NY 10511-0215
(914) 736-8414
(914) 736-8419 (fax)
gray.d@nypa.gov

NewYork Power Authority

IP-RES-00-140
October 24, 2000

TO: John Kahabka

FROM: Dara Gray

SUBJECT: Technologically Enhanced Radioactive Material (Silt) and Impact on Decanted River Water

We have previously stated that we expect the silt removed from our intake bays to contain radionuclides at levels slightly above background, rendering the silt "technologically enhanced radioactive material". As a result, there have been questions regarding the potential for the water removed from the silt to contain enhanced levels of radioactivity. As described below, this is not a concern.

Analysis of a small number of samples, and past experience, indicate that the silt to be removed will likely contain levels of Cs-137, higher than background but consistent will levels routinely observed in Hudson River Sediment. This comparison is based on the results obtained from our Radiological Environmental Monitoring Program, in which we sample and analyze various environmental media to monitor the impact of plant operations on the environment. Since this monitoring program has been conducted for more than 20 years, the results obtained provide a good picture of the presence/dispersion of radioactivity in the Hudson River media. It is expected that the silt and water removed from our intake structure will mimic this behavior.

Historical data indicates that for the past ten years, Hudson River water has contained < 2 pCi/L of Cs-137. At the same time, the bottom sediment has contained an average of 988 pCi/kg at indicator locations and 392 pCi/kg at control locations. In addition, in 1999, the river water again had < 2pCi/L, while the bottom sediment at indicator locations contained 377 pCi/kg. This data supports the contention that Cs-137 has a strong affinity for soil and will be present in the soil instead of the water column.

Numerous reports have cited Cs-137 as an element which is readily sorbed onto sediments and which is tightly bound to soil (References 1 and 2).

The only remaining possibility of increasing the radioactivity levels in the discharge would result from the disturbance and suspension of the sediment particles in the discharge water. However, our dewatering process will include sand filters to remove the sediments, ensuring that the discharge meets the 30 ppm TSS average limit. This effectively eliminates the potential for the suspension of particles in the water being discharged.

I hope this answer all of the questions. If there are additional questions, please contact me at (914) 736-8414.

REFERENCES

1. National Council on Radiation Protection (NCRP) Report # 52, "Cesium-137 from the Environment to Man."

2. Eisenbud, Merrill, "Environmental Radioactivity", Third Editions, 1987, Academy Press.

Sincerely,

Dara F. Gray
Sr. Radiological Engineer

ARIES CHEMICAL INCORPORATED
DEPOT ST., P.O. BOX 519
BEAVER FALLS, NEW YORK 13305
315-346-1489 FAX: 315-346-1658

Origination Date: 10-15-98
Revision Date: 7-27-00

3441

SECTION 1 - GENERAL INFORMATION

TRADE NAME:
Aries 3441

EMERGENCY PHONE NO:
CHEMTREC: (800) 424-9300

CHEMICAL NAME:
Cationic Flocculent

DISTRIBUTOR'S D-U-N-S NO:
14-861-3045

HAZARDOUS MATERIAL DESCRIPTION: Nonhazardous
FREIGHT CLASS: 55
SHIPPING NUMBER: N/A

SYNONYMS:
Cationic polyacrylamide in water-in-oil emulsion

FORMULA:
Polymer

CHEMICAL FAMILY:
Cationic Polymer

MOLECULAR WEIGHT:
Polymer

SECTION 2 - HAZARDOUS INGREDIENTS

INGREDIENTS	% BY WT.	CAS NO.	TWA OSHA	TWA ACGIH
Petroleum distillate hydrotreated light	18.0-23.0	064742-47-8	500 ppm	

HAZARD RATING	HEALTH	2	REACTIVITY	0
	FIRE	1	SPECIAL	B

SECTION 3 - PHYSICAL AND CHEMICAL PROPERTIES

SPECIFIC GRAVITY: ~ 1.0

pH: 3-4 (in water)

BOILING POINT: ~100 C; Oil phase ~ 175 C

SOLUBILITY IN WATER: Limited by viscosity

VAPOR PRESSURE: Similar to Water

PERCENT VOLATILE BY VOLUME: ~50

EVAPORATION RATE: N/A

APPEARANCE AND ODOR: Off-white translucent liquid; hydrocarbon odor.

SECTION 4 - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: >212 F; 100 C

FLAMMABLE LIMITS: LEL: N/A UEL: N/A

AUTO IGNITION TEMPERATURE: N/A

EXTINGUISHING MEDIA: Use water spray, carbon dioxide or dry chemical to extinguish fires. Use water to keep containers cool.

SPECIAL FIRE FIGHTING PROCEDURES: Wear self contained, positive pressure breathing apparatus and full fire fighting protective clothing.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Thermal decomposition may release oxides of carbon and nitrogen, ammonia, hydrogen chloride and sulfur dioxide.

SECTION 5 - HEALTH HAZARD DATA

EFFECTS OF EXPOSURE: Toxicological information on the OSHA regulated components of this product is as follows: Acute overexposure to petroleum distillate vapors may cause eye & throat irritation. Prolonged repeated exposure to petroleum distillate vapor may cause central nervous system damage as well as heart & blood disorders. The oral LD50 in the rat for various distillates ranges from 4.5 to greater than 25 ml/kg, & the inhalation LC50 in rats is about 15000 ppm. Aspiration of petroleum distillate may cause chemical pneumonitis. Overexposure to vapor may cause dizziness, drowsiness, headache and nausea.

INGESTION: Drink copious quantities of water. Immediately seek medical attention.

SKIN CONTACT: In case of skin contact, remove contaminated clothing without delay. Flush skin thoroughly with water. Do not reuse clothing without laundering. If irritation persists, seek medical attention.

EYE CONTACT: In case of eye contact, immediately irrigate with plenty of water for 15 minutes lifting eyelids often. Seek medical attention.

INHALATION: Remove individual to fresh air. Initiate artificial resuscitation and CPR if necessary. Seek medical attention.

CARCINOGENICITY: Not a carcinogen.

SECTION 6 - REACTIVITY DATA

STABILITY:	HAZARDOUS POLYMERIZATION:
Stable	Will not occur

CONDITIONS TO AVOID: Store away from sources of heat and ignition. Do not cut, grind or weld near containers.

MATERIALS TO AVOID: Strong oxidizing agents. This material reacts slowly with iron, copper and aluminum, resulting in corrosion and product degradation.

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS: Carbon monoxide; carbon dioxide; ammonia; hydrogen chloride vapor; sulfur dioxide; oxides of nitrogen.

SECTION 7 - SPILL OR LEAK PROCEDURE

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Where exposure level is not known, wear NIOSH approved, positive pressure, self-contained respirator. Where exposure level is known, wear NIOSH approved respirator suitable for level exposure. Spilled material should be absorbed onto inert material and scooped into an approved container for disposal. Flush remainder thoroughly with water and scrub to remove residue. Repeat if slipperiness remains.

WASTE DISPOSAL METHODS: Dispose of in accordance with Federal, State and Local regulations.

ENVIRONMENTAL TOXICITY DATA: N/A

HAZARDOUS WASTE 40CFR261: N/A

HAZARDOUS WASTE NO: N/A

CONTAINER DISPOSAL: Returnable

SECTION 8 - SPECIAL PROTECTIVE EQUIPMENT

RESPIRATORY PROTECTION: Where exposure level is know known, wear NIOSH approved, positive pressure, self-contained respirator. Where exposure level is known, wear NIOSH approved respirator suitable for level of exposure.

EYE PROTECTION: For operations where eye or face contact can occur, wear eye protection such as chemical splash proof goggles or face shield. Eyewash equipment and safety show should be provided in areas of potential exposure.

PROTECTION CLOTHING: Protective clothing such as impervious gloves, apron, workpants, long sleeve workshirt or disposable coveralls are recommended to prevent skin contact.

VENTILATION: Where this material is not used in a closed system, good enclosure and local exhaust ventilation should be provided to control exposure.

OTHER: Food, beverages and tobacco products should not be carried, stored or consumed where this material is in use. Before eating, drinking or smoking, wash face and hands with soap and water. Avoid skin contact.

SECTION 9 - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: To avoid product degradation and equipment corrosion, do not use iron, copper or aluminum containers or equipment. Do not cut, weld or grind near containers.

OTHER PRECAUTIONS: Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

SECTION 10 - REGULATORY INFORMATION

SECTION 313 - SUPPLIER NOTIFICATION

THIS PRODUCT DOES NOT CONTAIN ANY TOXIC CHEMICALS WHICH ARE REPORTABLE UNDER SECTION 313 OF THE EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT OF 1986 (40 CFR 372).

APPROVED BY: MARK MARCIN
TECHNICAL DIRECTOR